Gamma-ray Observations of Cas A SNR

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Gamma-ray observations of Cas A SNR have been stimulated by recent COMPTEL detection of the 1.157 MeV gamma-line flux of ^{44}Ti decays and by the hard X-ray power-law continuum measurements. Measuring the ^{44}Ti mass provides the unique opportunity to constrain the synthesis and ejection of a specific isotope from the innermost part of a single supernova. The hard X-ray power-law continuum is interpreted as the synchrotron radiation from accelerated electrons with energies of $\sim$100 TeV near the shock fronts. The correlation of the hard X-ray spectra with Cas A's radio spectra provides strong evidence for supernovae as sites of charged particle acceleration and sources of cosmic rays. We present the results of nine viewing periods of OSSE/CGRO Cas A SNR observations, then we summarize and compare various measurements of Cas A's ^{44}Ti line flux and hard X-ray continuum measurements of various instruments.